Function Based Individual Student Support

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Workshop Objectives

- Define function-based behavioral intervention
- Demonstrate a model of the functional assessment process and mechanisms for systems and team procedures
- Practice developing appropriate hypotheses based on information gathered in context and implications for intervention
- Identify methods for monitoring and evaluating outcomes of behavioral supports

The Challenge

- Lots to cover
- Little time
- Intro, not fluency

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Part 1

A FUNCTIONAL APPROACH TO PROBLEM BEHAVIOR

Functional Assessment

Defined

- *Functional assessment is a process for identifying the events that reliably predict and maintain problem behavior.*

Functional Assessment places problem behavior in "context"

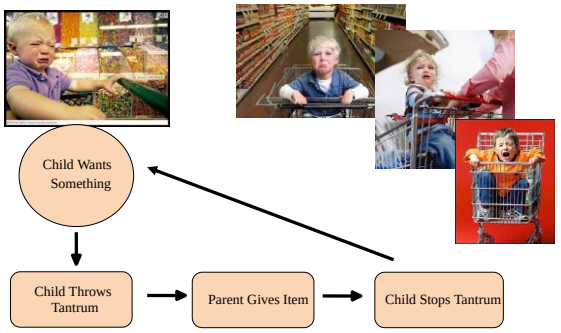
- Behavior - defined in observable terms
- Predictors/Controlling Antecedent Stimuli
  - cues, situations, events that set off (trigger) behavior
- Maintaining Consequences
  - what a person gets/avoids that keeps behavior recurring
- Setting Events/Establishing Operations
  - conditions, events that "set a person up" for problem behavior when a "triggering" cue/event occurs
  - operate by changing the value of consequences

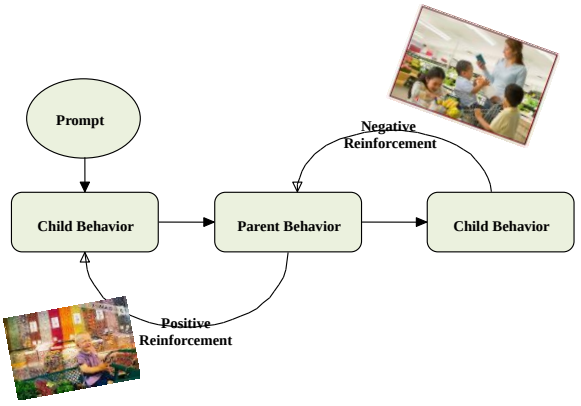
Assumptions

- Challenging behavior serves a function for the child.
- Challenging behaviors are context related.
- Effective interventions are based on a thorough understanding of the child and his or her problem behavior.

Behavior 101…

- *Behavior is learned*.
  - Do not assume children know the rules, expectations, or social skills.
  - Every social interaction you have with a child teaches him/her something.
- *Behavior communicates need*.
  - Children engage in behavior to "**get**" something or to "**avoid**" something.
  - Need is determined by observing what happens prior to and immediately after the behavior.





Why Determine a Behavior's Function?

Because we know:

- Challenging behaviors ***always*** serve a function
- Challenging behaviors are ***contextual*** and vary by individual

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Consequence: Reinforcement

Reinforcement makes the target behavior ***more likely to occur in the future.***

Positive Reinforcement
You ADD something pleasant / desired (ex: toy, food, attention)
(+)

Negative Reinforcement
You **TAKE AWAY** something unpleasant/ undesired (ex: close the door to eliminate noise)
(-)

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Core Concepts in Behavior

- In the school setting, a functional assessment is conducted when staff are faced with serious and/or chronic challenging behavior.

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Applied Behavioral Analysis

- Concerned with the relationships between *Behavior* and the *Teaching Environment*
- "Functional Relationship"
  - *When "X" happens, there is a high degree of likelihood that "Y" will result*

Functional Relationships with the Teaching Environment

Events that precede behavior

- Events in the environment can "trigger" challenging behavior - they serve as cues for the student to perform a behavior because the student can predict the outcome when the cue is present

Functional Relationships with the Teaching Environment

Events that follow behavior

Following a student behavior the environment "gives" something to the student and student behavior maintains or increases -- what ever was given is reinforcing to that individual

Functional Relationships with the Teaching Environment

Events that follow behavior

- Following a behavior the environment allows the student to stop an activity or is removed from the situation and the student behavior maintains or increases -- the event the student is avoiding is aversive to that individual

Negative Reinforcement

- Following a behavior, the removal or termination of a stimulus or event that increases the future likelihood of that behavior occurring again

Reinforcement

An event that increases the likelihood of a behavior being repeated

Activity: Which one is the ***best*** example of reinforcement?

A. Tom waits to use the water fountain.

B. Tom waits to use the water fountain and the teacher gives him a thumbs up.

C. Tom waits to use the water fountain and the teacher gives him a thumbs up. The next time the class goes to the water fountain, Tom waits quietly in line.

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Activity: Which one is the ***best*** example of reinforcement?

A. As Nathan and Shara argue over a toy, Nathan hits Shara. Shara lets go of the toy and Nathan takes it. Nathan hits peers more frequently during play time.

B. As Nathan and Shara argue over a toy, Nathan hits Shara. Shara lets go of the toy and Nathan takes it.

C. As Nathan and Shara argue over a toy, Nathan hits Shara.

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Activity: Which one is the ***best*** example of reinforcement?

A. Lola cleans her room without being told and her mother lets her skip another chore.

B. Lola cleans her room.

C. Lola cleans her room without being told and her mother lets her skip another chore. Lola cleans her room again the next evening.

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Note About ***Reinforcement***

Reinforcement has occurred ***only*** if the behavior maintains or increases.

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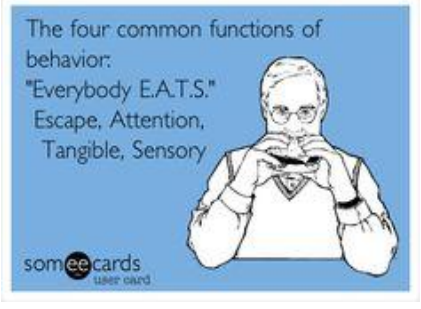

Most Common Functions of Behavior

To Obtain/ Get :

- Peer attention
- Adult attention
- Desired activity
- Desired object/ items
- Sensory stimulation: auditory, tactile, etc.

To Avoid/ Escape:

- Difficult Task
- Boring Task
- Easy Task
- Physical demand
- Non-preferred activity
- Peer
- Staff
- Reprimands

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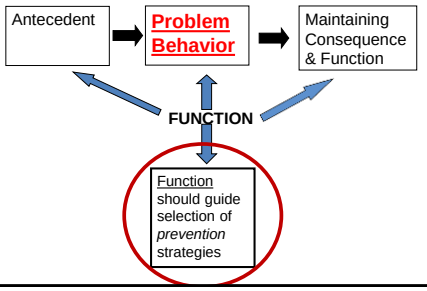
Function Based Interventions

When generating interventions we use Function to develop ideas to change A, B & C

Targeted Routine



Example:

- Jason is nine and cries when asked to do difficult tasks. The crying is maintained by avoiding or escaping difficult tasks.

Start w/ the Function

- Possible behavioral interventions:
  - ~~Planned ignoring Jason when he cries~~
  - Breaking down objectives into smaller parts; asking for help
  - ~~Stopping the activity~~
  - ~~Time out from reinforcement~~
  - ~~Increasing his schedule of reinforcement (e.g. giving him access to preferred activities more often)~~

Which one will address the FUNCTION of the problem?

Common Problem Behaviors and Some Usual Suspects for Functional Antecedents and Consequence

	Antecedents	Behaviors	Consequences
Grades K-2	·Teacher demand ·Task difficulty ·Lack of supervision ·Lack of classroom rules ·Little structure ·No planned consequences ·Transitions	·Talking ·Making noises ·Moving around ·Attention seeking ·Fighting ·Crying ·Taking others' things	·Teacher attention ·Peer attention ·Escape from work ·Tangibles
Grades 3-5	·Teacher demand ·Confrontation ·Task difficulty ·Lack of supervision ·Lack of classroom rules ·Little structure ·No planned consequences ·Transitions	·Talking ·Making noises ·Moving around ·Attention seeking ·Noncompliance ·Fighting	·Teacher attention ·Peer attention ·Escape from work
Grades 6-12	·Teacher demand ·Confrontation ·Task difficulty ·Lack of supervision ·Lack of classroom rules ·Little structure ·No planned consequences ·Transitions	·Disrespect of authority ·Talking ·Moving around ·Attention seeking ·Noncompliance ·Fighting ·Leaving school	·Escape from school ·Escape from task ·Peer attention ·Status among peers ·Teacher attention ·Access to tobacco ·Access to drugs ·Access to alcohol

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Step 1:

GATHER INDIRECT AND DIRECT DATA

Five Steps

1. Gather indirect and direct data
2. Analyze the data
3. Formulate a hypothesis about the function of the behavior
4. Develop a plan
5. Monitor and adjust as needed

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Conducting a Functional Assessment:

The Starting Point:

Verify the seriousness of the problem

- A teacher can eliminate many classroom problems by consistently applying effective classroom management strategies
- Observations may indicate that the solution rests in systematic changes in classroom practices

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What Is Behavior?

- Action or event that is ***observable, measurable, and repeated***
- Stated in objective, precise language

Photo Credit: horizontal.integration via Compfight cc

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What is behavior?

- Maria's mind wanders.
- Chloe is depressed.
- Logan raised his grade in math.
- Tony has an attitude.
- Mike is concentrating.
- Sharon daydreams.
- TJ is angry.
- Walter is ADHD.

Defining the Target Behavior

- Behavior that is selected (targeted) for intervention
- General format for describing target behavior:
  a. General descriptor for the behavior
  b. Series of specific observable, measurable, and repeatable examples

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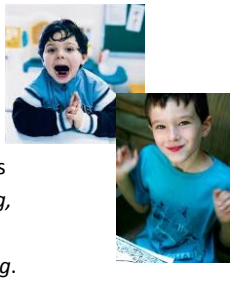
Key Questions:

- Is the behavior ***observable***?
- Is the behavior ***measurable***?
- Is the behavior ***repeated***?

Target Behavior Examples…

The target behavior is *destruction of classroom properties*, which includes such behaviors as *drawing in books, tearing worksheets, and breaking pencils*.

Target Behavior Examples…



The target behavior is *self-stimulation*, which is defined as *hand flapping, rocking, stomping while seated and head nodding*.

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Target Behavior Examples

The target behavior is aggression, which is defined as pushing, hitting, and making verbal threats to peers.

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Good Description of Target Behavior? Yes or No?

General Descriptor	Specific Example	
The target behavior is destruction of property	This includes pushing books to the floor and tearing worksheets.	✚
The target behavior is aggression towards peers	The target behavior is pushing peers in line while waiting for lunch.	✚
The target behavior is aggression toward staff	This includes making staff members angry and irritated.	⊘
The target behavior is daydreaming	This includes thinking about anything other than work.	⊘
The target behavior is disrespect to staff	This includes cursing at staff, refusing to follow directions, and tardiness.	⊘

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Practice: Page 7

Think of a student and operationally define the target behavior(s)

	Behavior #1	Behavior #2
What does the behavior look and sound like?		
How frequently does the behavior occur?		
How long does the behavior last?		
How intense/dangerous is the behavior?		
What typically brings and end to the behavior?		

Record Review

- Attendance
- Health history
- Onset of current problems
- Past services or interventions
- Effectiveness of previous interventions
- Previous educational functioning
- Previous assessments
- Sensory screening

Interviews (Indirect Assessment)

- Brief Functional Assessment
- FACTS
- Student Interview

Activity!

Complete the Functional Assessment Interview

p. 7,8,9 of Planning Intensive Function Based Interventions Handout

– Use the operationally defined problem behavior you previously identified for your target student.

A word about antecedents

Setting Events or Antecedents that are ***Slow Triggers***

- Situations are ***unique to individuals*** and may manifest over time
- Tends to make the ***problem behavior more intense or more likely to occur*** (e.g., illness, fatigue, hunger, social conflict), though not always immediately

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A word about antecedents

Examples of **Slow Triggers**

- Argument with parent or sibling at home
- Previous upset/conflict/emotional concerns
- No breakfast (cranky or irritable)
- Exclusion (e.g., from peers, adults)
- Past failure with subject matter

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Setting Events or Antecedents that are ***Fast Triggers***

- Changes in the environment
- Availability & organization of materials
- Opportunity for choices
- Times of day/activities
- Clarity of expectations
- Nature of interactions (tone, proximity, contact)
- Amount & type of attention (peer, groups, adult)
- Task difficulty
- Length of engagement
- Pace of instruction
- **Hunger, fatigue, thirst, discomfort
- **Hunger, fatigue, thirst, discomfort

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Conduct a schedule review

List the student's daily schedule and the academic area or activity presented during that time. Then rate the probability that the behavior will occur during the indicated time or activity.

Time, Period, Activity	Typical Problem Behavior(s) (#1 or# 2 from above)	Typical Triggering Antecedent(s)	Typical Maintaining Consequence(s)	Probability of Problem Behavior (low, medium, high)
				L M H
				L M H
				L M H
				L M H
				L M H
				L M H
				L M H
				L M H
				L M H
				L M H

Setting Event (Slow Triggers)	
Antecedents (Fast Triggers)	
Problem Behavior	
Maintaining Consequence (Function)	

Specific hypothesis formation: Use the information above to answer the questions below to develop a specific hypothesis about the function of the behavior:

Given the circumstances when (slow trigger) _____ *and*

when (fast trigger) _____

occurs, the student does (problem behavior) _____ _____

*in order to (maintaining function)*_____.

To what degree of accuracy do you think you have identified the setting events, antecedents and function of the problem behavior?

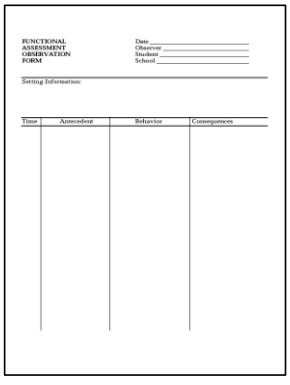
Not very confident 1 2 3 4 5 *Very Confident*

Based on the interview, what do you think the student gets or avoids by engaging in the problem behavior?

Direct Observation
(Direct Assessment)

A-B-C

Scatterplot



A-B-C Assessment

SIMPLE FUNCTIONAL ASSESSMENT			
Time	Antecedents	Behavior	Consequences
2:30	Sue walked up to say "hi"	Screamed loudly	Sue cried and moved away
2:45	Beth started to tease	Screamed and hit his head	Beth left and got teacher

A-B-C ASSESSMENT

– Script the Evan and Alex scenario in an A-B-C format.

A-B-C Practice Example

Setting:
Students are working independently on writing assignments. Students are seated in clusters with 4 students to a table. Alex and Evan are at the same table

Target Student: Evan

Observation:
Evan asks Alex what he is writing about.

Alex tells Evan it is none of his business. Evan tells Alex he has a new app on his iPad that he is going to play at lunch and asks if Alex wants to see it. Alex tells Evan he is lame. Evan calls Alex a jerk. Alex tells Evan to shut-up. The teacher tells the boys to stop talking and work. Evan raises his hand and tells the teacher Alex is calling him names. The teacher reprimands Alex. Evan laughs under his breath. Alex tells Evan "Shut up or I'll shut you up."

A-B-C Report Form

Name *Evan* Date/Time of observation *April 17, 2013, 1:20 p.m.*
Place observation occurred *Classroom* Environmental conditions (number of students, arrangement, number of adults, etc.) *One teacher, 24 students, 4 students per table*
Activities observed during observation *Writing assignment*
Unusual or potentially influential conditions *none known or observed*

Time	Antecedent	Behavior	Consequence
	Teacher prompts students to start writing assignment	*Evan asks Alex what he is writing*	*Alex tells Evan it's none of his business*
	✓	*Evan says he has a new app on his Ipad and asks / offers to show it to Alex*	*Alex calls Evan "lame"*
	✓	*Evan responds , calling Alex a "Jerk."*	*Alex tells Evan to, "Shut up."*
	Teacher reprimands and tells boys to start working	*Evan tattles that Alex is calling him names.*	*Teacher reprimands Alex*
	✓	*Evan laughs quietly*	*Alex tells Evan to "Shut up or I'll shut you up."*

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Student: _____ Date: _____ Page_____ of _____

Time (Start & End Time)	Context/Activity (Student's environmental surroundings (people, places, events))	Antecedent/Setting (What occurred in environment immediately before target behavior occurs)	Identified Target Behaviors (List type of behavior displayed during incident)	Consequence/ Outcome (What happened in the environment immediately after the behavior occurred)	Student Reaction (How did the student react immediately after the initial consequence delivered)	Staff Initials
Key	A.	A.	A.	A.	A.	
	B.	B.	B.	B.	B.	
	C.	C.	C.	C.	C.	
	D.	D.	D.	D.	D.	
	E.	E.	E.	E.	E.	
	F.	F.	F.	F.	F.	
	G.	G.	G.	G.	G.	
	I.	I.	I.	I.	I.	
	J.	J.	J.	J.	J.	
	K.	K.	K.	K.	K.	

Student: *Danita Hart* Date: *11/08/2010* Page *1* of *10*

Time (Start & End Time)	Context/Activity (Student's environmental surroundings (people, places, events))	Antecedent/Setting (What occurred in environment immediately before target behavior occurs)	Identified Target Behaviors (List type of behavior displayed during incident)	Consequence/ Outcome (What happened in the environment immediately after the behavior occurred)	Student Reaction (How did the student react immediately after the initial consequence delivered)	Staff Initials
8:30-8:39	*A*	*A*	*B*	*B*	*B*	*SR*
9:05-9:20	*C*	*C*	*C*	*I*	*A*	*RC*
12:15-12:23	*I*	*H*	*A*	*C*	*A*	*SR*
3:15-3:30	*A*	*A*	*B*	*B*	*B*	*MD*
Key	A. group work	A. transition	A. throwing objects	A. choice given	A. stopped	
	B. individual work	B. choice given	B. disruptive outburst	B. redirection	B. continued	
	C. reading	C. redirection	C. physical aggression	C. discussion of beh.	C. intensified	
	D. math	D. instruction/directive	D.	D. personal space given	D. slept	
	E. spelling	E. new task	E.	E. changed activity	E. yelled	
	F. social studies	F. routine task	F.	F. peer attention	F. cried	
	G. science	G. physical prompt	G.	G. verbal reprimand	G. other behavior	
	H. free choice	H. teacher attention to others	H.	H. physical prompt	H. moved away	
	I. lunch	I. told "No"	I.	I. time out	I. self-stimulation	
	J. outside	J. close proximity	J.	J.	J.	
	K.	K. interaction	K.	K.	K.	

14 out of 420 minutes = 3%

ABC Data Analysis Chart

Student: *Danita Hart* Date: 11/15/2010

Summary of Baseline Data:

10 Days of Data (count total number of days data was collected)

42 Total Number of Incidents (count total number of incidents during data collection)

4.2 **Average Number of Incidents Daily** (total incidents divided by number of days)

629 Total Number of Minutes Engaged in Target Behavior (count on A/B/C form)

15 **Average Length of Incidents** (divide total number of incident minutes by number of incidents)

15 **% of Day Engaged in Behavior** *(Add total number of incident minutes divided by the total number of minutes and multiply by 100)*

Break day into segments based on student schedule.

TIME OF DAY	Tally	Ratio	% Involved
8:00 – 8:29			
8:30 – 8:59	✓✓✓✓✓ ✓✓✓✓	9/42	21%
9:00 – 9:29	✓✓✓✓✓ ✓✓✓	8/42	19%
9:30 – 9:59			
10:00 – 10:29	✓✓	2/42	5%
10:30 – 10:59			
11:00 – 11:29	✓	1/42	0%
11:30 – 11:59			
12:00 -12:29	✓✓✓✓✓	5/42	12%
12:30 – 12:59	✓	1/42	2%
1:00 – 1:29	✓✓✓✓✓	5/42	12%
1:30 – 1:59			
2:00 -2:29	✓	1/42	2%
2:30 – 2:59			
3:00 – 3:30	✓✓✓✓✓ ✓✓✓✓✓	10/42	24%

Behavior seems to occur during 3 predictable times across the day.

Tally the number of incidents on each day of the week to determine if there is a pattern to the behaviors based on the day of the week:

DAY OF WEEK	Tally	Average Incidents Per Day
Monday (2)	✓✓✓✓✓ ✓✓	3.5
Tuesday (2)	✓✓✓✓✓ ✓✓✓✓	4.5
Wednesday (2)	✓✓✓✓ ✓✓✓✓✓	4.5
Thursday (2)	✓✓✓✓✓✓ ✓✓	4
Friday (2)	✓✓✓✓✓ ✓✓✓✓	4.5

List and review the contexts you measured to determine if there is a pattern:

CONTEXT	Letter	Tally	Ratio	% Involved
Group work	A	✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓	19/42	45%
Independent work	B			
Reading	C	✓✓✓✓✓ ✓✓✓	8/42	19%
Math	D	✓✓✓✓✓ ✓✓	7/42	17%
Spelling	E	✓	1/42	2%
Social Studies	F			
Science	G			
Home Room	H			
Lunch	I	✓✓✓✓✓ ✓✓	7/42	17%
Outside	J			
	K			

The predictable contexts match the times of day that the behaviors occur the most frequently

List the behaviors you tracked and tally the frequency

BEHAVIORS	Tally	Ratio	% Involved
Throwing objects	✓✓✓	3/42	7%
Disruptive outbursts	✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓✓	25/42	60%
Physical aggression	✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓	14/42	33%

Throwing objects did not occur frequently enough to draw any conclusions

List the antecedents measured:

ANTECEDENTS	Letter	Tally	Ratio	% Involved
Transitions	A	✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓	19/42	45%
Choice given	B			
Redirection	C			
Instruction/directive	D	✓✓✓	3/42	7%
New task	E	✓✓✓✓✓ ✓✓✓✓✓ ✓✓	11/42	26%
Routine task	F			
Physical prompt	G			
Teacher attention to others	H	✓✓✓✓✓ ✓✓✓	8/42	19%
Told "NO"	I			
	J			
	K			

Transitions, new tasks, and when the teacher is giving attention to other students seem to be the most predictable antecedents to the problem behaviors

Look for patterns to see if certain behaviors are associated with certain antecedents. List the antecedents and behaviors. Tally the frequency of each behavior that correlates with the antecedent

ANTECEDENTS	Letter	Behaviors: Throwing Objects	Disruptive Outbursts	Physical Aggression
Transitions	A		✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓✓ ✓✓✓✓	
Choice given	B			
Redirection	C			✓
Instruction/directive	D			✓✓
New task	E		✓	✓✓✓✓✓ ✓✓✓✓✓ ✓
Routine task	F			
Physical prompt	G			
Teacher attention to others	H	✓✓✓	✓✓✓✓✓	
Told "NO"	I			
	J			
	K			

Disruptive outbursts occur during transitions, and when the teacher's attention is directed to other students, while physical aggression tends to occur during instructional time, particularly when a new task or skill is presented.

SCATTER PLOT OF JERRY'S HEAD HITTING

Student: Jerry Mitchell

Date: Week of 3/11/96 to 3/22/96

Behavior: Head hitting: Any occurrence in which contact is made between Jerry's open hand (palm) and any part of his head or face.

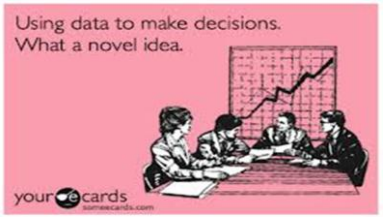
Respondent: Ms. McClean

■ = Head Hitting

Activity	Time	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Breakfast	8:30 - 9:00										
Personal Hygiene	9:00 - 9:15									■	
Schedule/Assignments	9:15 - 9:30				■					■	
Community-Based Instruction	9:30 - 10:45										
PE/Music	10:45 -11:15									■	
Domestic	11:15 -12:00		■				■				
Lunch	12:00 -12:30				■						
Personal Hygiene	12:30 -12:45									■	
Vocational Activities	12:45 - 1:30	■	■	■	■	■	■	■		■	■
Leisure	1:30 - 2:00				■		■				
Prepare for Home	2:00 - 2:15				■					■	
Bus	2:20									■	

Behaviors:
a) Scream, throw, break
b) Leave setting
c) Physical Aggression

Routines	M	T	W	Th	F	Sat	Sun	M	T	W	Th	Fr	
						Days							
Rise													20
Breakfast													19
Ride to work						Na	Na						18
9:00-10:30	a	a	a		a			a	a	a	a	a	17
Break													16
10:45-12:00	a		a					a	a				15
Lunch													14
1:00-2:40	a	a	a	a				a		a			13
Break	b	b							b				12
3:00-4:45									a				11
4:45-5:00		a											10
Ride home						Na	Na						9
Rest													8
Aft outing													7
Meal prep				c	c			c					6
Dinner													5
Clean up													4
Choice													3
Evening routine													2
Bed													1



Step 2:

ANALYZE THE DATA

Summarize the Information

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Data Review and Analysis	Summary Notes:
❒ Review the indirect data sources (interviews) to identify any common responses or observations. Agreement across different sources is an indication of valid data.	
❒ Review the observation data to identify patterns in how the student responds to different antecedents and what happens after each occurrence of inappropriate behavior as well as appropriate behavior.	
❒ Look for patterns in ways the adults and peers in the environment respond to the behavior.	
❒ Look for similar patterns in antecedents and consequences across observations.	
❒ Compare direct observation data with indirect data assessments. Does data from the observations support the information gathered through the indirect assessments?	

Summarize the data

1. List the precipitating events under which the target behavior occurs	2. What is the problem behavior?	3. What maintains the behavior (what is the student able to access or avoid)?	4. What skill deficits are contributing to the occurrence of the problem behavior?

Step 3:

FORMULATE A HYPOTHESIS ABOUT THE FUNCTION OF THE BEHAVIOR

Writing a statement of function

- Why?
  - To provide information relevant to making effective intervention decisions
  - To clearly communicate the function of the behavior to other persons in crafting and implementing the intervention

Conducting a Functional Assessment

Get/Acquire Positive Reinforcement	**Escape/Avoid** Negative Reinforcement
• Receive attention from adults or peers • Receive tangible objects or access to preferred activities • Get automatic sensations	• Escape attention from adults or peers • Avoid aversive tasks or responsibilities • Avoid automatic sensations

Summary Statement (hypothesis)

Based on results from the FBA

1. Setting events (slow triggers) relevant to the occurrence of problem behavior
2. Predictor events (antecedents/fast triggers) for problem behaviors
3. Problem behavior
4. Maintaining consequences (perceived function) of problem behavior.

Consider…

- Does the hypothesis specify an environmental event that can be altered for an intervention?
- Is the hypothesis based on the data that have been gathered?
- Is there team consensus that the hypothesis is reasonable?

Examples of Summary Statements

Immediate situation (A)

- When Perry is getting little attention in a large group in the classroom

Problem Behavior (B)

- he is likely to shout profanities and throw things

Summary statements continued…

Maintaining Function (C)

- to get peer attention.

Distant event (Setting Event)

- The less attention Perry has received during the day, the more likely this pattern is to occur.

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Examples of Summary Statements – ABC + Setting Event

When Michael begins to have difficulty with a reading or math assignment (A),
he will put his head down, refuse to respond and close his books (B),
to try to avoid having to complete the assignment (C).
The likelihood of this pattern increases if Michael has received teacher reprimands earlier in the day (SE).

Example: Negative reinforcement - Attention

When peers in a group make comments about his lunch, Billy is physically aggressive (hits with closed fist and kicks) to avoid peer attention. That is, Billy is *removed from the lunchroom* or *peers stop making comments* (negative reinforcement – attention)

Example: Negative reinforcement - Activities

When working on a task for more than 15 min., Tia engages in destructive behavior (tips over her chair or desk) to avoid an activity. In other words, when Tia is destructive, she *gets a break from the work task* (negative reinforcement – tangible/activity)

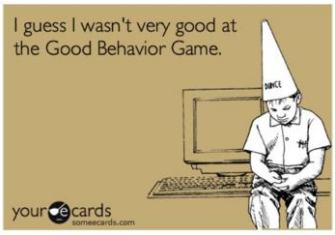
Negative Reinforcment: Escape

*Following Mark's verbal non-compliance, the **teacher turns** and gives directions to another student (*Mark avoids having to comply*).*

Positive Reinforcment: Attention

*When Sarah uses verbal profanity, her **peer starts to argue** with her (*peer attention is increased or received)

Given the circumstances when (*fill in setting events/slow trigger*), and when (*fill in antecedents and fast triggers*) occurs, the student does (*fill in problem behaviors*) in order to (*fill in perceived function*).



Step 4:

DEVELOP A BEHAVIOR INTERVENTION PLAN MATCHING INTERVENTION TO FUNCTION

What do you want him to do instead?

Selecting a Replacement Behavior

- Stated in terms of what you want the student to do
- Something the student can do or learn to do
- Supported by the natural environment

Dead Man's Rule

- If a dead man can meet the criteria, it's not behavior.
- The absence of behavior is not a replacement behavior.

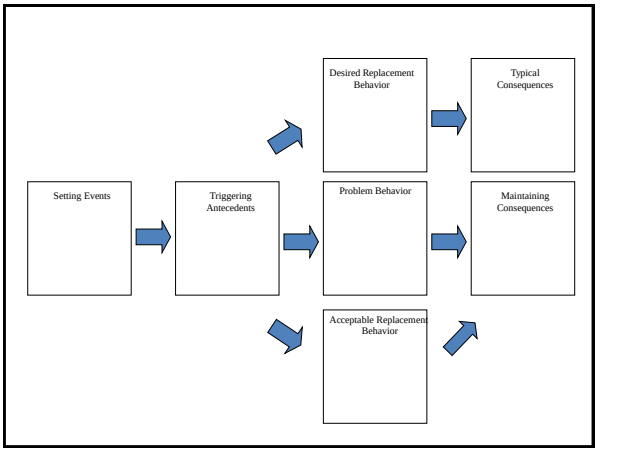
Target Behavior	Replacement Behavior	Yes/No
Disrupting class during group discussion, which includes talking out and talking with peers	Sitting quietly and raising a hand to be called on during group discussions	
Off-task activities during math class, which include behaviors such as rearranging materials, sharpening pencils, and digging in a backpack	A grade of "A" in math class	
Pushing peers while waiting in line.	Not pushing peers while waiting in line.	
Hitting staff, which includes open hand slaps and closed fist hits		

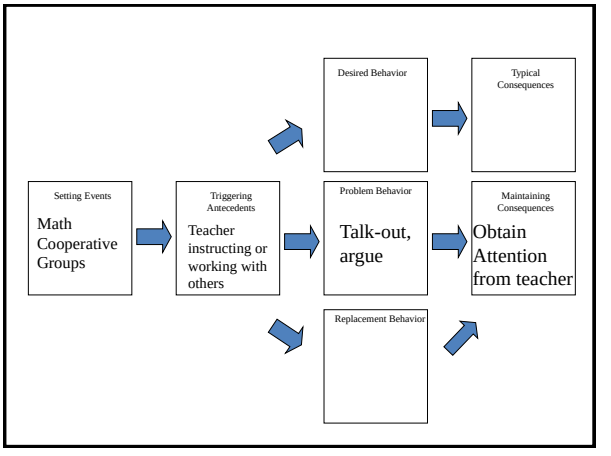
Designing Support Plans

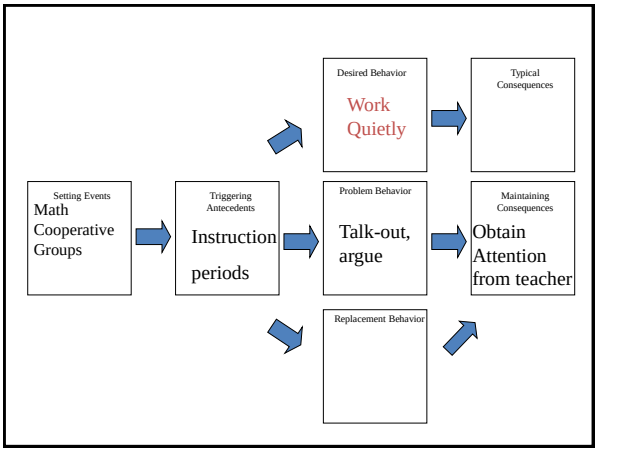
- Multicomponent intervention planning
- Generalization and maintenance
- Contextual fit

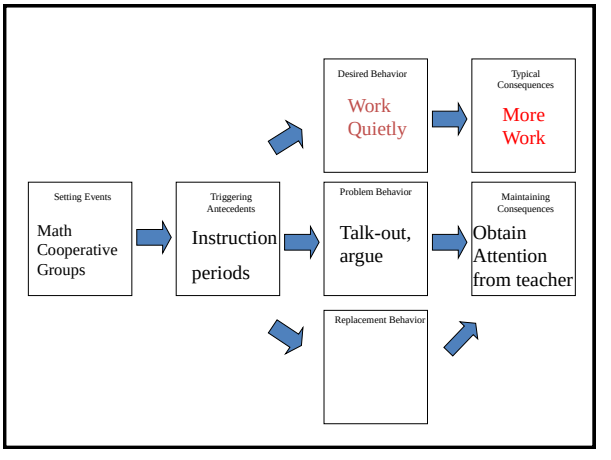
BIP Components

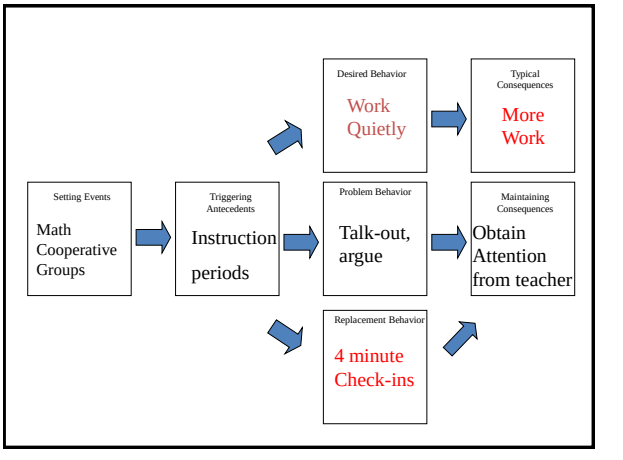
- Strategies for prevention
- Instructional strategies
- Extinction Strategies
- Reinforcement Strategies
- Crisis Management (if necessary)







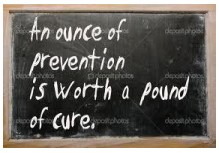




Start with the summary from the analysis:

1. List the precipitating events under which the target behavior occurs	2. What is the problem behavior?	3. What maintains the behavior (what is the student able to access or avoid)?	4. What skill deficits are contributing to the occurrence of the problem behavior?

Advantages of Antecedent & Setting Event Interventions



- Prevent problem behavior
- Quick acting
- Correct faulty environment
- Enhance instructional environment

Bambara & Kern, 2005

Antecedent Interventions

Function	Intervention Strategy	Example
Gain Attention	Schedule adult attention	• Have adult work with student • Have adult periodically provide attention • Increase positive interactions • Provide increased specific praise
	Schedule peer attention	• Pair student with peer • Use peer tutoring • Use cooperative learning
	Increase proximity to student	• Change seating arrangement • Periodically move around classroom
	Provide preferred activity	• When adult is occupied and unable to provide attention, assign a more preferred activity

Function	Intervention Strategy	Example
Escape Task or Environment	Adjust demand difficulty	• Provide easier work • Decrease amount of work

	Offer choice	• Allow student to choose
		  • Task to complete
		  • Sequence of tasks
		  • Materials to use
		  • Where to complete task
		  • When to complete task
		  • With whom to complete task

	Increase student preference/ interest in activity	• Incorporate student hobbies/interests into activity
	Assure that activities have functional or relevant for the student	• Provide activities with valued outcomes

Function	Intervention Strategy	Example
Escape Task or Environment	Assure that activities have functional or relevant for the student	• Provide activities with valued outcomes
	Alter length of task	• Shorten activity • Provide frequent breaks
	Modify mode of task completion	• Change medium / materials • Replace pencil and paper with computer
	Use behavioral momentum, task dispersal	• Present easy requests to difficult requests
	Increase predictability	• Provide cues for upcoming or change in activities
	Modify instructional delivery	• Use pleasant tone of voice

Function	Intervention Strategy	Example
Escape Task or Environment	Differential negative reinforcement of alternative behavior (DNRA)	• Allow a break from instruction based on an alternative appropriate response (e.g. compliance) while placing problem behavior on extinction
	Differential negative reinforcement of zero rates of responding (DNRO)	• Allow a break when the problem behavior has not occurred for a specific period of time and place the problem behavior on extinction
	Extinction	• Ignore problem behavior and continue presenting the task regardless of problem behavior
	Noncontingent escape	• Provide breaks from work on a time-based schedule, irrespective of problem behavior

Function	Intervention Strategy	Example
Tangible	Provide a warning	• Indicate activity is about to end
	Schedule a transitional activity	• Schedule a moderately preferred activity between a highly preferred and highly nonpreferred activity
	Increase accessibility	• Put highly preferred items within students' reach
Sensory	Provide alternative sensory reinforcement	• Offer radio to student seeking auditory reinforcement, or visual stimuli to a student seeking visual reinforcement
	Enrich environment	• Fill environment with interesting and stimulating activities

Case Example: Instructional Match

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Instructional Mismatch?

- **Problem:** The assessment of a student's current instructional level/ability is **inaccurate** in some way (e.g., knowledge, difficulty, pace, and/or level).
  - In other words, there is a mismatch between the student's skill/ability and the level or difficulty of the task.
- **Result:** Students who are ***failing academically*** are frustrated and often ***act out***!

Source: Evidence Based Intervention Network (http://ebi.missouri.edu)

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Quick Example #1

Instructional Issue:

- Doing addition problems without being able to count

Possible Solution:

- Preteach content or skill—teach student number skills before introducing addition.

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Quick Example #2

Instructional Issue:

- Journal writing without being able to form two- or three-word sentences

Possible Solution:

- Reduce the difficulty of the task—as opposed to writing sentences independently, you could have the student draw a picture and fill in the blank/guided writing.

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Quick Example #3

Instructional Issue:

- Difficulties understanding reading comprehension passage

Possible Solution:

- Break down tasks into smaller, more manageable subtasks—provide questions with prompts and key words from the passage.

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Example: Johnny

- **Task/Activity**: math worksheet with multi-step directions
- **Behavior**: pretends to sleep; non-responsive
- **Other Notes**: generally sociable; likes peers

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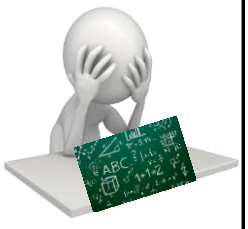
Considerations for Johnny

- **Function:**
  Escape/avoidance of the math task
  - More specifically, *Johnny cannot remember multi-step directions*
  - **Priority reason was identified as a mismatch** between the current instructional level and task demand



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Considerations for Johnny

- **Intervention**: Select an intervention that **aligns with the identified function** of behavior
  - Use visual prompts
  - Write instructions on the whiteboard
  - Provide desk-size copies of instructions

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Considerations for Johnny

- **Monitor outcomes and analyze data:** After implementing the visual prompts for three math lessons, the teacher will assess if Johnny is more engaged and submitting his math worksheets.
- **Style and context**: The teacher has identified that she really likes peer tutoring strategies as well.
  - Add peer tutor or mentor

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Critical Components for Success With Instructional Match

- Must be able to accurately assess a student's **current** skill level **and** implement a curriculum and use teaching materials that are appropriate to the student's instructional level.
- Must **match** task demands with current skill levels to ensure success.
- Must differentiate instruction whenever possible and appropriate.

Source: Evidence Based Intervention Network (http://ebi.missouri.edu)

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1. **Based on the function** listed in item 3, what can you change (antecedent manipulation) that will make it less likely that the behavior will occur? *Review appendix A for function related interventions*

Antecedent Manipulation	*Implementation Steps* *(list specific steps to be taken to implement intervention in the environment)*	*Person(s) Responsible*

Pg. 15: What can you change that will make it less likely the behavior will occur?

Replacement Skill Interventions

- Does the replacement skill require *less effort* than the problem behavior?
  - From the student's perspective, is it easy to use?
- Does the replacement skill produce *outcomes of the same quality or magnitude* of the problem behavior?
- Do others *respond immediately* when the student uses the replacement skill, especially during initial instruction?
- Are procedures in place to ensure that replacement skills are encouraged and *not inadvertently punished*.

Teaching Alternative Skills

- ***Replacement skills***: to provide student with an effective way of achieving the same outcome
- ***Coping & tolerance skills***: to teach socially acceptable ways of coping with situations that cannot be changed.
- ***General adaptive skills:*** to expand social, communicative, and academic competence in order to prevent problem situations and help student pursue preferences & interests

Start Here

Halle, Bambera, Reichle, 2005

Teaching Coping & General Adaptive Skills

- Anger control training
- Relaxation training
- Social problem solving
- Goal setting, self-monitoring and self-evaluation
- Self-cueing

List the instructional strategies And who is responsible on page 15

How will you provide appropriate reinforcement for the replacement skill?

Page 15

Remember, the new skill should be functionally equivalent to the target behavior – therefore result in a similar outcome.

How will you prevent the target behavior from being reinforced?

Page 15

What has been reinforcing the behavior must be withheld.

Description of Response Strategies

Strategy	How it works	Examples	Cautions
Instructional procedure	Teaches an alternative behavior	·Peer praise ·Prompting ·Discussion ·Problem solving ·Restitution	·Attention provided for problem behavior ·Skills must be part of behavioral repertoire
Extinction	Discontinues reinforcement for inappropriate behavior	·Planned ignoring	·Increase in frequency of behavior ·Escalation in severity of behavior
Differential reinforcement	Provides reinforcement for appropriate behavior	·Scheduled attention	·Reinforcement may not be delivered when student wants or needs it
Negative punishment	Removes preferred items or activities	·Time owed ·Removal of privileges or preferred activities	·Escalation in severity of behavior
Positive punishment	Provides something unpleasant	·Feedback ·Reprimand ·Phone call home	·Counter-aggression ·Escalation in severity of behavior.

Plan for Integrity of Implementation

- Teaching
- Coaching and feedback
- Scripts for adults to follow
- Data Collection
- Follow-up support meetings
- Follow up data evaluation

Monitor The Plan

- Evaluate the effects of interventions comparing baseline data to data during intervention. Is your plan working?
- If y our plan is not working, consider some reasons why it might not be working. What changes are needed in your plan? Make those changes.
- If you plan is working, consider what you will do next. Will you simplify the plan to make it more efficient? Will you fade, change or terminate your interventions?
- Continue to implement your interventions until you feel they are no longer needed or no longer working.
- After terminating the plan, continue to collect data to determine whether any positive effects are maintained following plan-termination.

Monitor the Plan: Five Considerations

- Evaluate the effects of interventions, comparing baseline data to data during intervention. Is your plan working?
- If your plan is not working, consider some reasons why it might not be working. What changes are needed in your plan? Make those changes.

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Monitor the Plan: Five Considerations

- If your plan is working, consider what you will do next. Will you simplify the plan to make it more efficient? Will you fade, change, or terminate your interventions?
- Continue to implement your interventions until you feel they are no longer needed or working.
- After terminating the plan, continue to collect data to determine whether any positive effects are maintained following plan termination.

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Data-Based Decisions

- Were the goals of the support plan achieved?
- Was implementation done consistently and with integrity?
- Is more assessment needed?
- How should the plan be modified?

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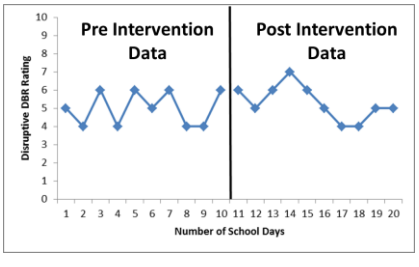
Progress Monitoring Graphs



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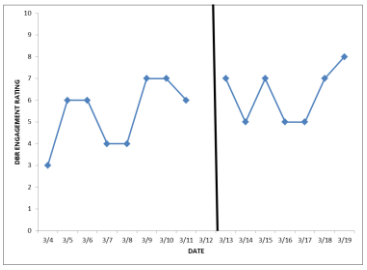
Comparing Non-intervention and Intervention Patterns: Example 1



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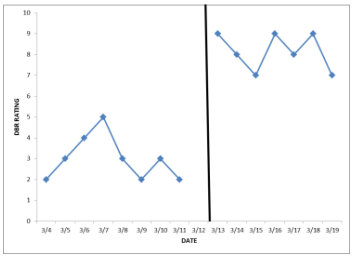
Comparing Non-intervention and Intervention Patterns: Example 2



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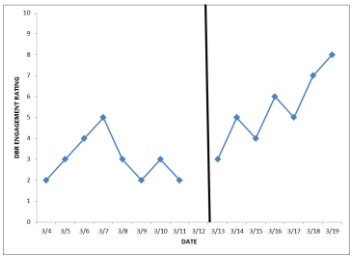
Comparing Non-intervention and Intervention Patterns: Example 3



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Data Evaluation Methods and Features

- Student behavioral progress is typically monitored through visual analysis.
- This involves examining the emergent data pattern, including the:
  - Level of the data
  - Trend of the data
  - Variability of the data

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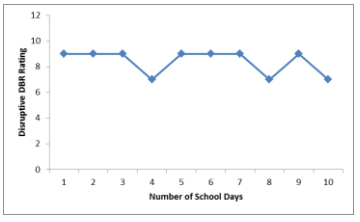
Level

The average value of a set of scores or ratings



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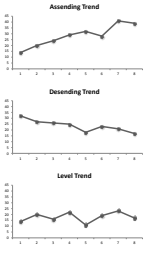
Trend

- Trend is the direction of the data path.
  - Ascending or increasing
  - Descending or decreasing
  - Level or flat
- Trend must be considered in light of the target behavior.
  - Increasing engagement is good.
  - Increasing disruptiveness is not.



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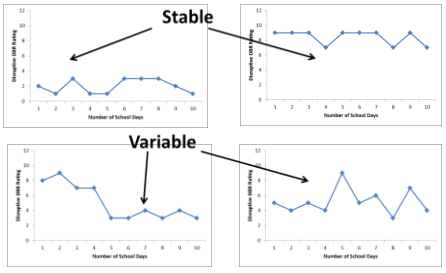
Variability



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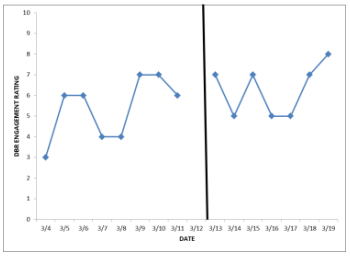
Comparing Non-Intervention and Intervention Patterns: Example 1



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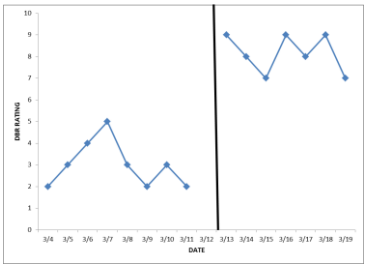
Comparing Non-Intervention and Intervention Patterns: Example 2



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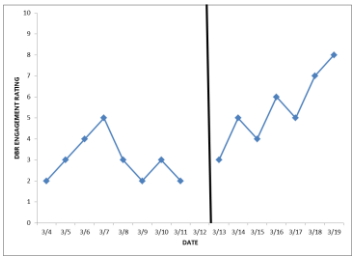
Comparing Non-Intervention and Intervention Patterns: Example 3



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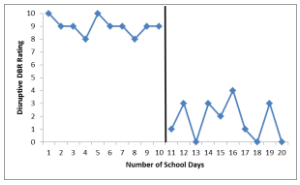
Using Means to Augment Evaluation

Visual analysis is the traditional method used for evaluation of behavior data, but means can help us quantify the changes we see in the data.



Preintervention mean = 9.2

Postintervention mean = 3.7

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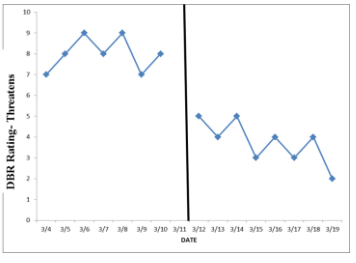
Jeff's Target Behavior Data (Threatens)



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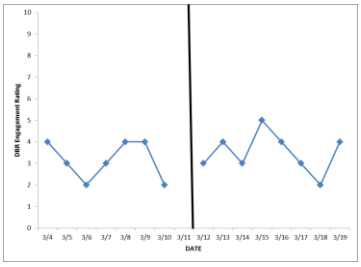
Jeff's Target Behavior Data (Engagement)



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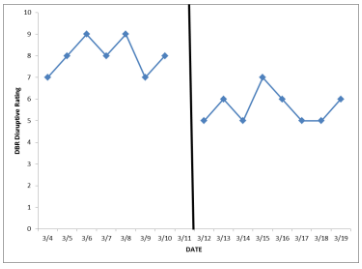
Jeff's Target Behavior Data (Disruptive)



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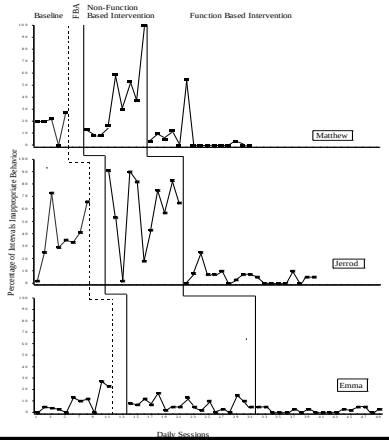

Function Based Individual Student Support

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